Jet Propulsion Laboratory
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November 16, 2006
Refer to 9110-04-16 AEA: DM

TO: Distribution

FROM: David Morris

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held November 16, 2006.

NEXT JURAP MEETING:
Thursday, January 18, 2007
JPL Bldg. 303, Room 401 1:00 p.m.

Attendees:

A. Almeda	S. Chhan	D. Garibek	M. Slade
A. Andujo	L. Efron	J. Hall	K. Zanora
R. Benson	F. Fisher	C. Hernandez	
G. Burke	J. Frautnick	D. Morris	

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts. The previous meeting was held on October 19, 2006 at the Jet Propulsion Laboratory.

Introductory Remarks – D. Morris

Welcomed the attendees to the JURAP meeting and announced that this JURAP meeting would include a presentation from J. Hall on the Voyager 2 Hybic Test and Swap Plan, and S. Chhan on DSS-43 Downtime in January 2007. A short video presentation showed the DSS-63 Elevation Bearing removal. Brief reminder that the next RARB is in February, and request Missions and Projects to respond with feedback. Other presentation includes A. Almeda on DSN Downtime and D. Garibek on RAPS Status.

SPECIAL PRESENTATION

Voyager 2 Hybic Test & Swap Plan – Jeff Hall

Explanation of the Voyager 2 requirements in January and February 2007 for the Hybic Test & Swap Plan. Critical event to start from November 20, 2006 through November 27, 2006 for a Go/No Go for the Hybic 1. Other requirements includes January 22 (week 4), 2007 through January 27, 2007.

For complete presentation detail, please refer to link: http://rapweb.jpl.nasa.gov/jurap.html

Resource Analysis Team

DSS-43 Downtime – January 2007 – Steven Chhan

Recommendations of the additional seven – days to either start earlier or later than the current downtime planned. Current downtime was for weeks 5 – 6, and move that either to weeks 4-6 or weeks 5 – 7.

NOTE:
These two presentations (Voyager 2 and DSS-43 Downtime) resulted in a serious contention to both the plan for the currently approved DSS-43 downtime and the newly requested addition to this time. A new plan has to be crafted that blends the requirements of Voyager 2 and the needs of DSS-43 preventative maintenance. This will be discussed over the next couple of weeks to come up with an agreeable plan. Subsequent to this meeting, a plan was proposed to both parties that was agreeable and then ratified by email with the rest of the user community. The new plan is:

- DSS-43 Downtime Proposal for Grouting in week 06 - 07, DOY 035/2100 - 047/0600
- DSS-43 downtime for Painting task to occur 7 days daily from ~2100 – 0700 UTC from DOY 085 thru 091. (03/26 – 04/02/2007) This may change by a couple of hours dependent on Ulysses needs, etc.

DSN Antenna Downtime Status and Forecast – Albert Almeda

Summarize the changes to 2006 – 2010 Downtime Schedules.

Changes to 2006 Downtime Schedule

- DSS-46 Downtime requested in week 50 for 3 – 5 days

Changes to 2007 Downtime Schedule

- DSS-63 Load Sensor Install early or late 2007
- DSS-43 Grouting and Painting requested additional 7 days
- DSS-14 Software Update task in March – April for 2 weeks (approx. 12 days straight or two – 5 days during day shift – Monday.
- DSS-66 Hydraulics requires only 5 days downtime
- DSS-46 Hydraulics requires only 5 days downtime
- LNA Status Preventative Maintenance Plans

Changes to 2008 Downtime Schedule

- DSS-34 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 208-278 (weeks 30 - 40) July 26 – October 04

Changes to 2009 Downtime Schedule

- DSS-24 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 192-262 (weeks 28 – 38) July 11 – September 19

Changes to 2010 Downtime Schedule

- DSS-54 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 235-270 (weeks 28 - 38) August 23 – September 27

For a complete listing of Antenna Downtimes, visit the following link for the RAPSO website: http://rapweb.jpl.nasa.gov/planning.htm

RAPS & Mid-Range Status – D. Garibek

- Weeks 01 - 02 were released to DSN Scheduling, weeks 03 – 04 have remaining facility and equipment conflicts, weeks 07 – 08 are due to be released to remote users. The Mid-Range Scheduling process has negotiated schedules 5 weeks ahead of real-time. Currently, there are 5 weeks of conflict-free schedules. Conflict Resolution is required

Ongoing Special Studies / Activities

- RAR for February 2007
- Downtime Planning

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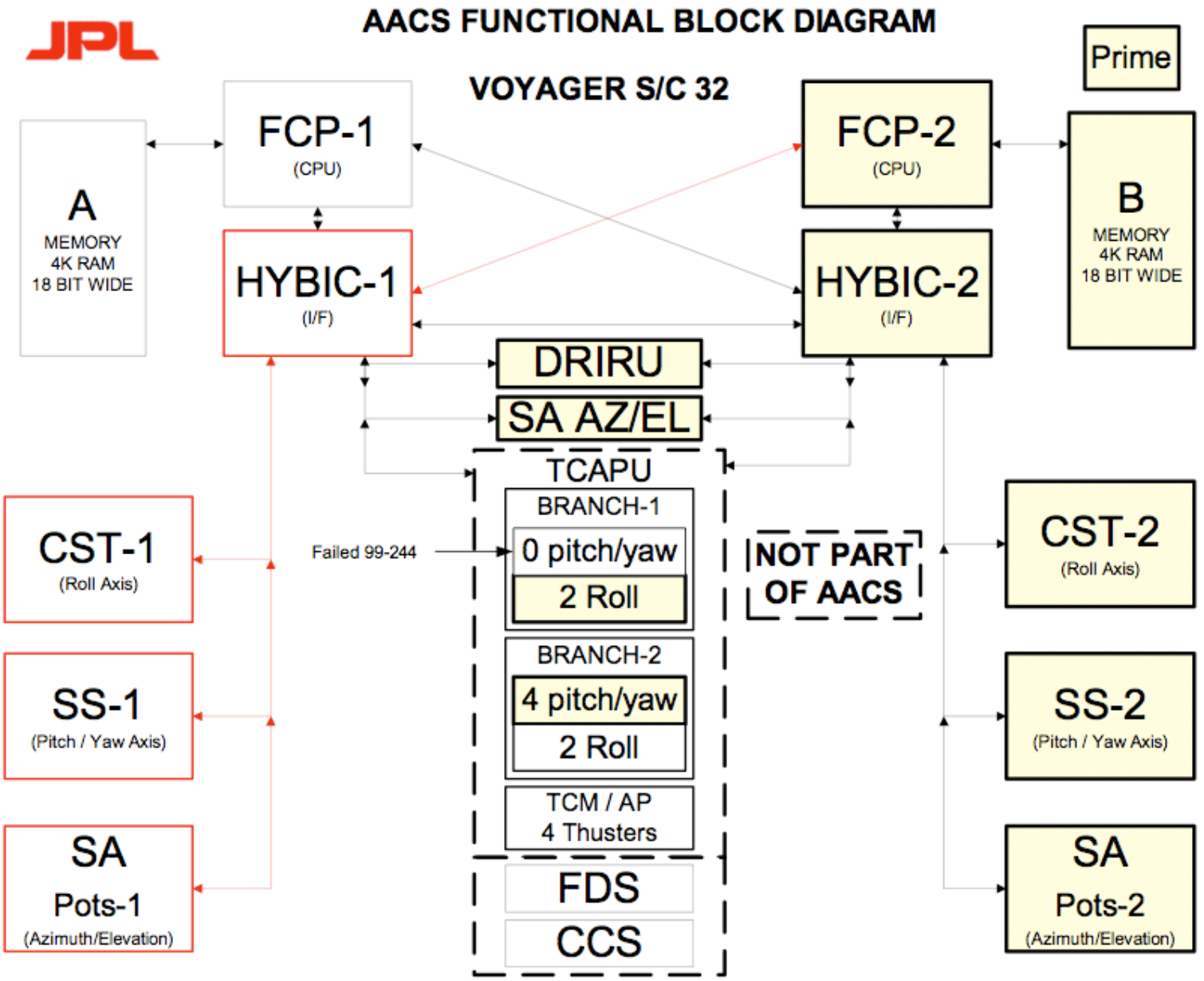
VOYAGER 2 HYBIC TEST & SWAP PLAN

Voyager

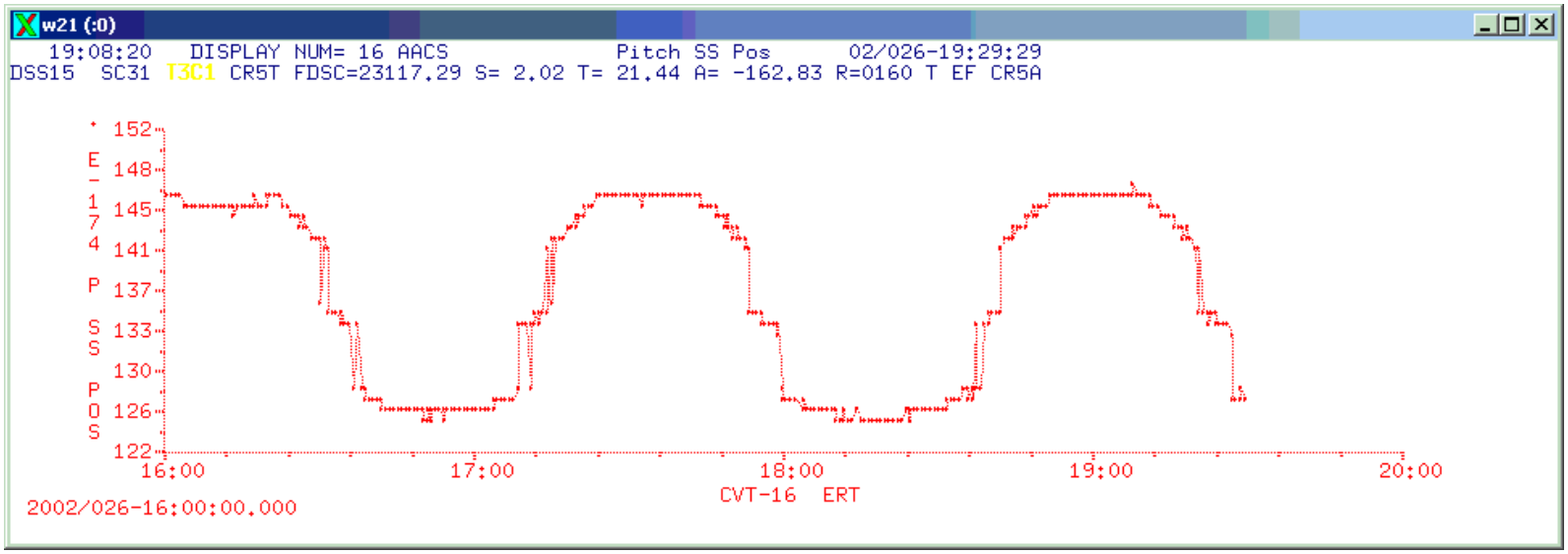
Hybrid Buffer Interface Circuit Anomaly

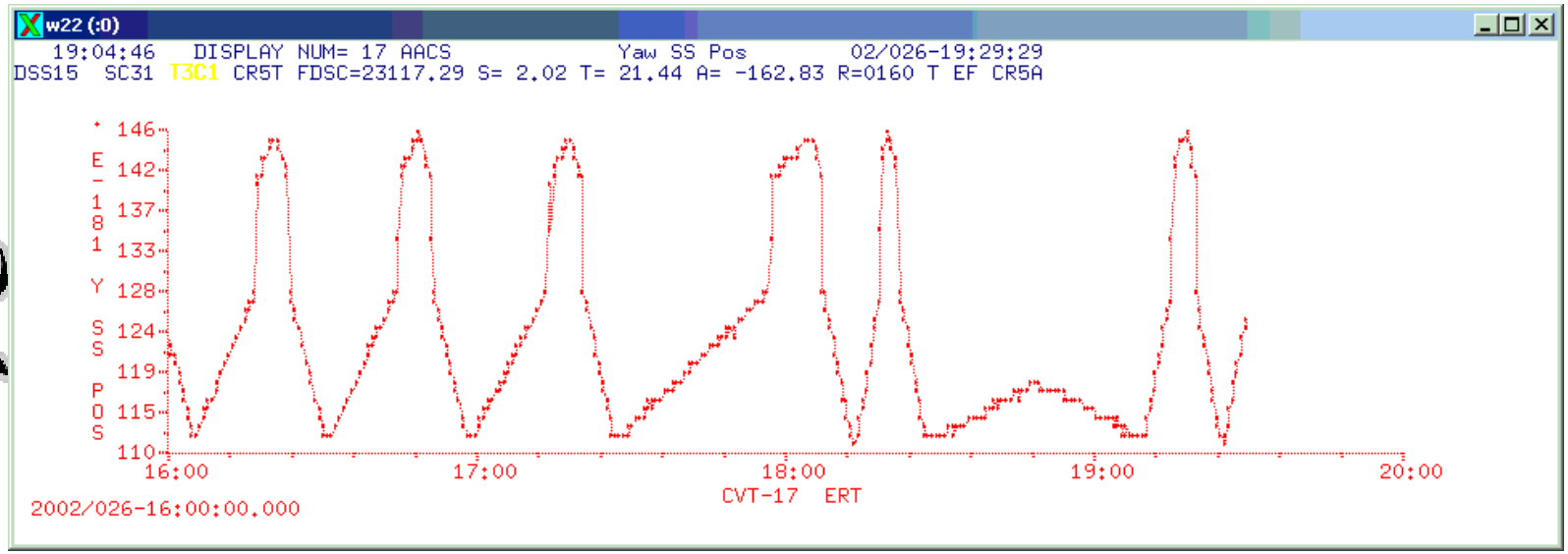
- HYBIC 2 Analog to Digital Converter (A/D) Offsets on Voyager 2
- Problem:
  - Voyager 1 (V1) analysis strongly suggests that the problem occurs when the A/D tries to convert analog voltages around zero volts (nominally 128 DN) resulting in a positive or negative displacements of up to 9 DN for Voyager 2, so far. A DN is equal to 16 mv. V1 showed errors as high as 15 DN (.09°, on the yaw sun sensor position) before the switch to the backup HYBIC in 2002.
- Indicated by Erroneous Telemetry Readings of Analog Channels:
  - Pitch / Yaw Sun Sensor Positions, Star Tracker Roll Position, Star Tracker Cone Angle and Pitch Sun Sensor Bias
- Impact: Possible loss of spacecraft
  - HYBIC Swap
    - Sun Sensor Anomaly (Intensity and/or Angle Detector)
    - Star Tracker Anomaly (Loss of Lock Star)
    - TCAPU (Propulsion) Fault. 1500 pulses within 5 minutes
    - 3 Gyro Failures
  - FCP after 2 HYBIC Swap


JPL
AACS FUNCTIONAL BLOCK DIAGRAM
VOYAGER S/C 32
Prime
A
MEMORY
4K RAM
18 BIT WIDE
FCP-1
(CPU)
HYBIC-1
(I/F)
FCP-2
(CPU)
HYBIC-2
(I/F)
B
MEMORY
4K RAM
18 BIT WIDE
DRIRU
SA AZ/EL
TCAPU
BRANCH-1
0 pitch/yaw
2 Roll
BRANCH-2
4 pitch/yaw
2 Roll
TCM / AP
4 Thusters
FDS
CCS
Failed 99-244
NOT PART
OF AACS
CST-1
(Roll Axis)
SS-1
(Pitch / Yaw Axis)
SA
Pots-1
(Azimuth/Elevation)
CST-2
(Roll Axis)
SS-2
(Pitch / Yaw Axis)
SA
Pots-2
(Azimuth/Elevation)

V1 Pitch and Yaw Data with A & B Gyros On 2002-026

Pitch Gap 7 DN or 0.04° , Yaw Gap 15 DN or 0.088° (.00586°/DN)





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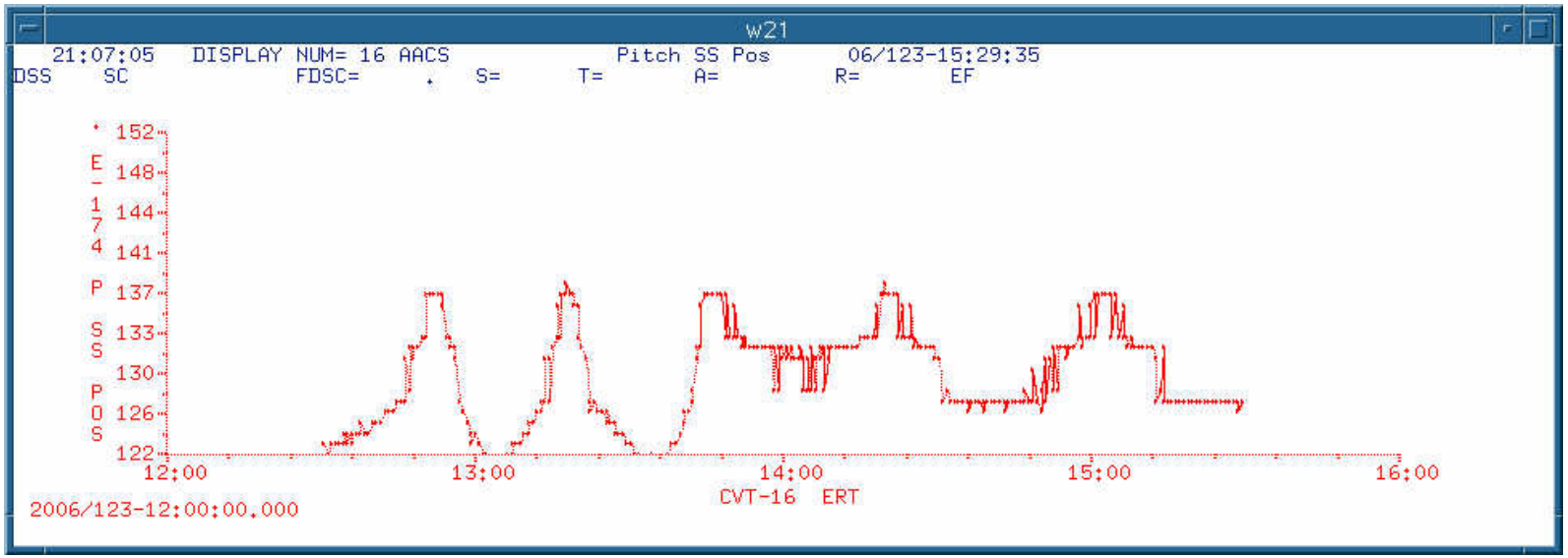
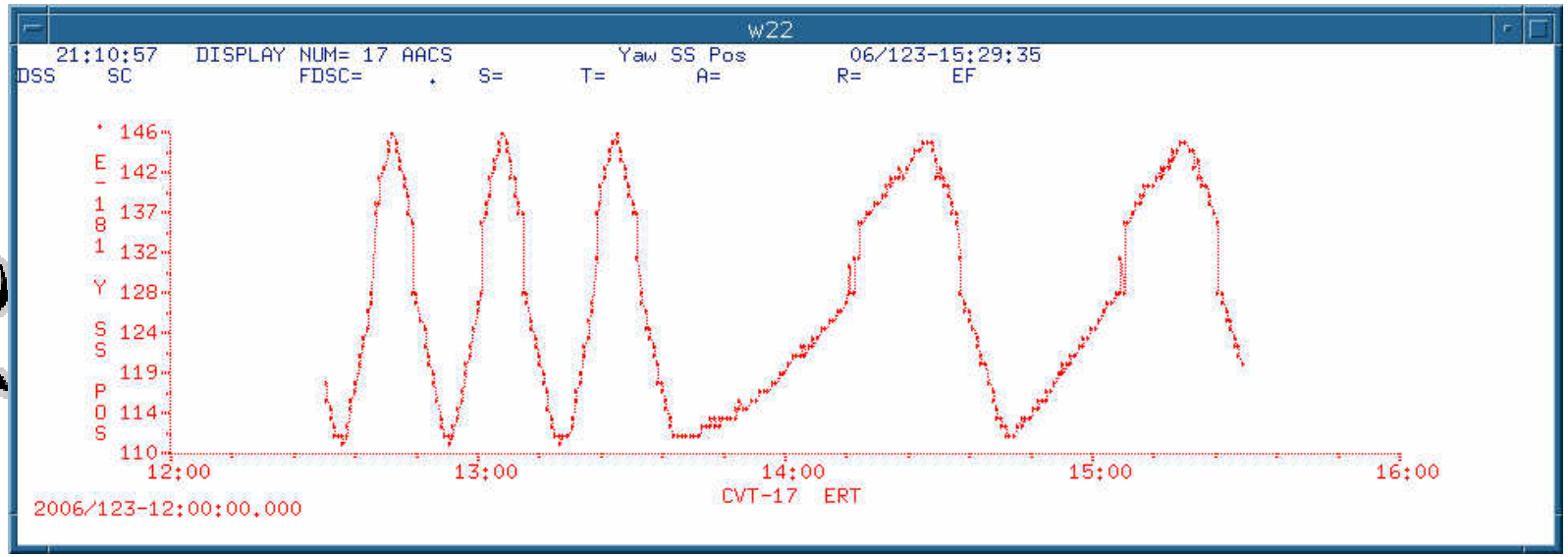
Voyager

V2 Pitch and Yaw Data with B & C Gyros On 2006-123

Pitch Gap 5 DN or 0.03° , Yaw Gap 9 DN or 0.053° (.00586°/DN)





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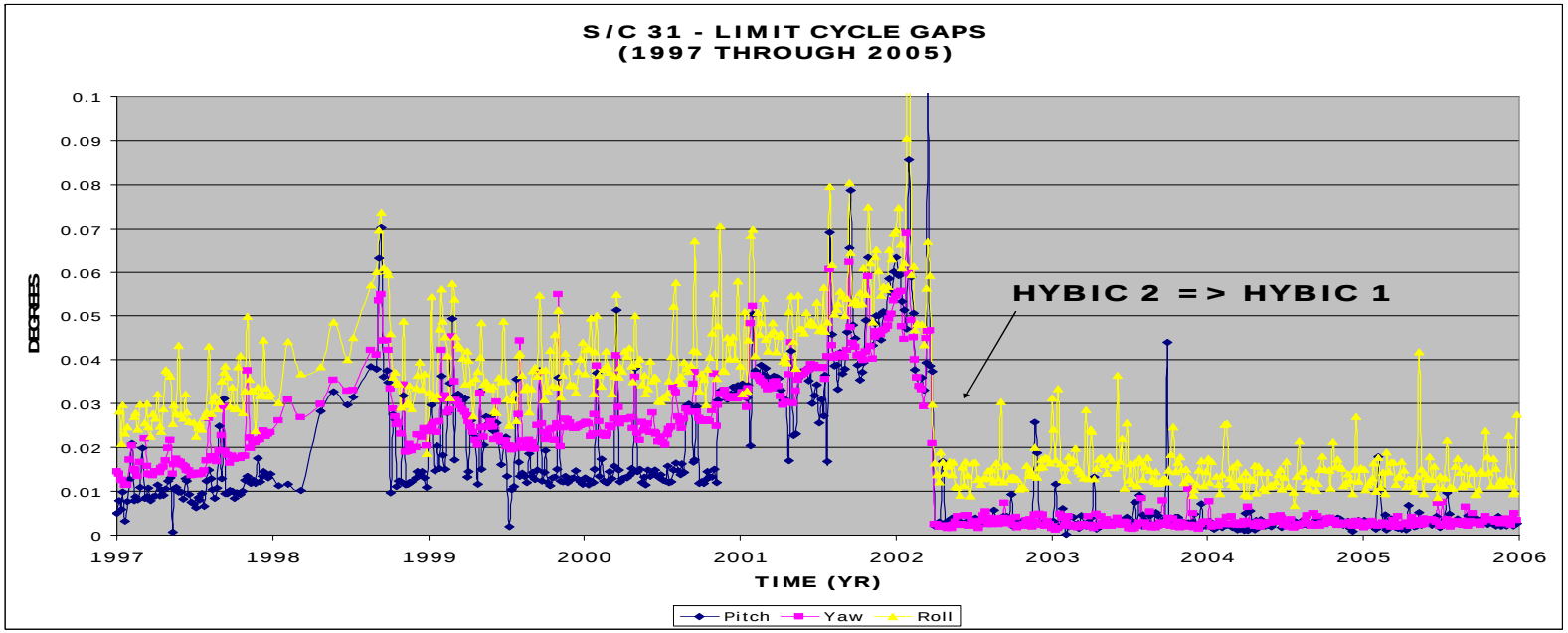
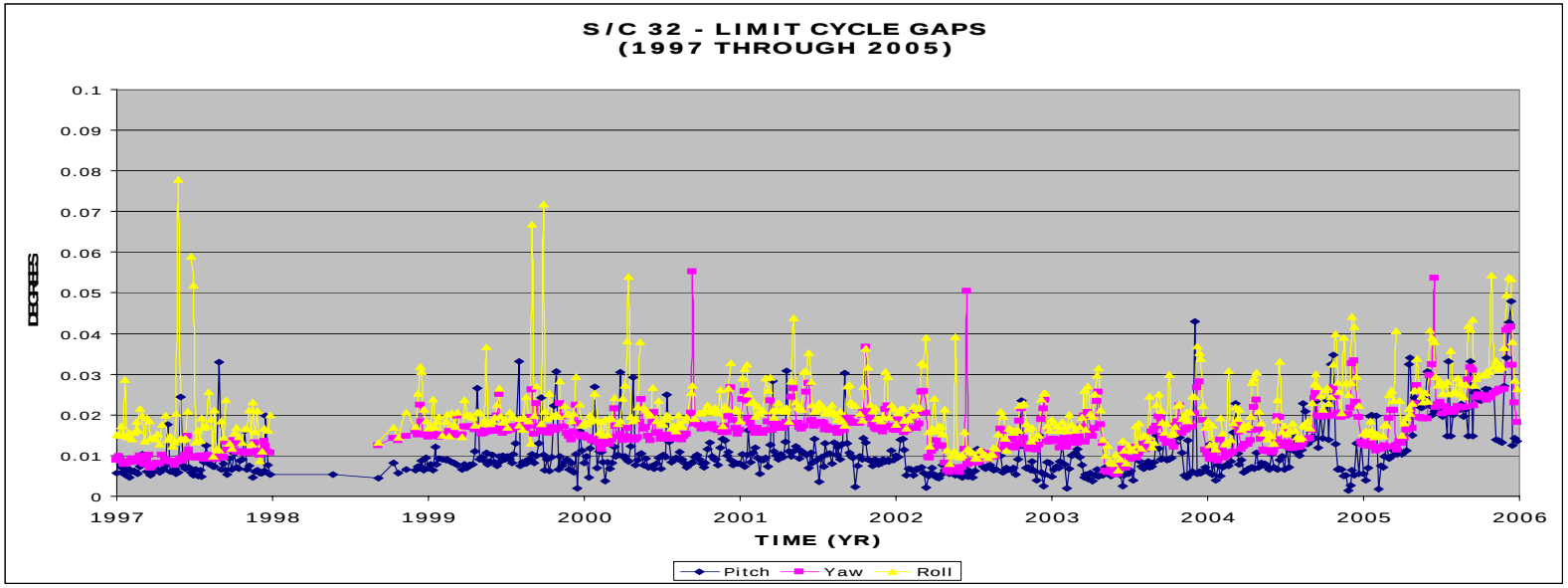
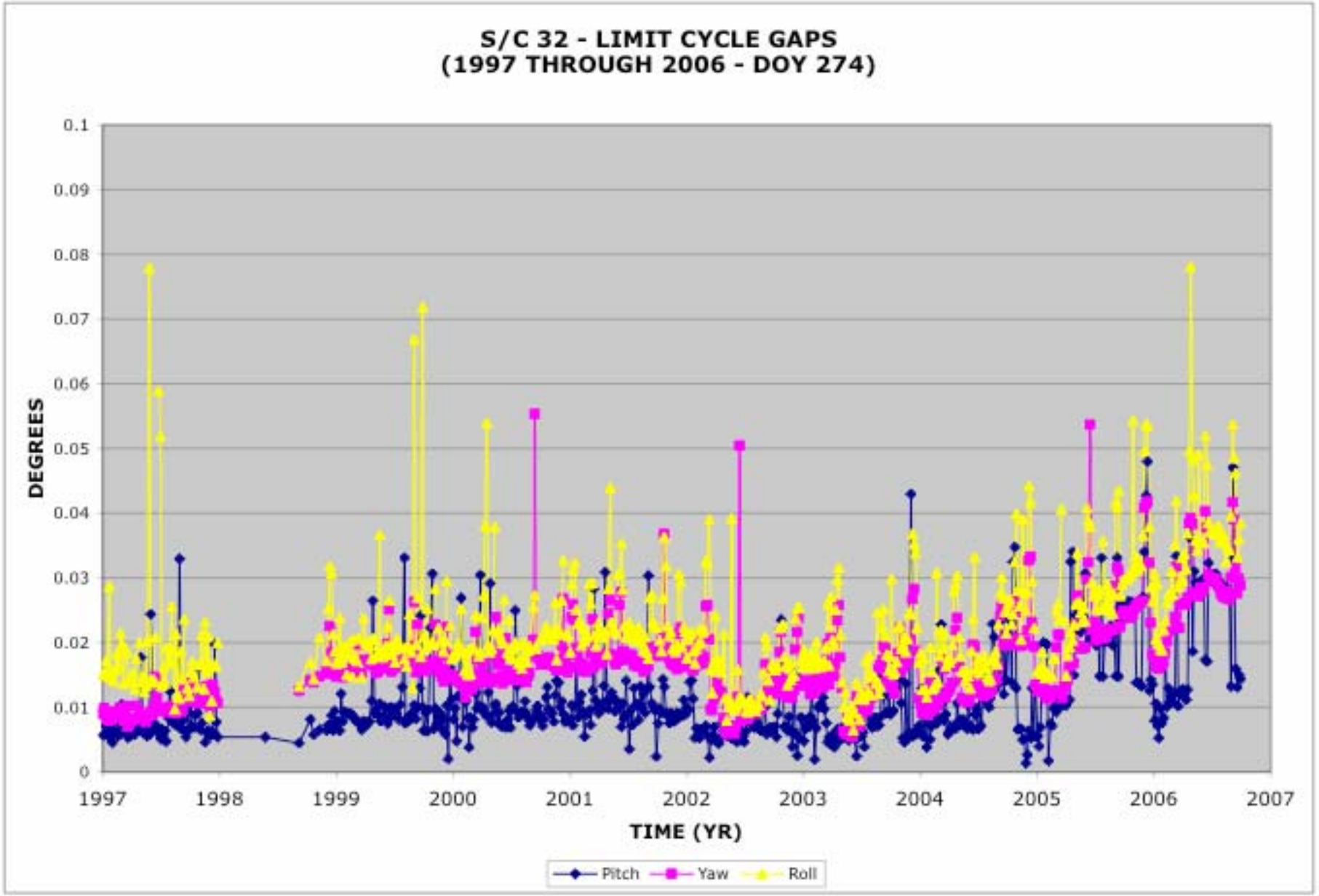
Voyager

V1 and V2 Pitch and Yaw Gap Trend






S/C 32 - LIMIT CYCLE GAPS
(1997 THROUGH 2006 - DOY 274)
DEGREES
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
TIME (YR)
Pitch
Yaw
Roll

HYBIC Anomaly Test/Swap

- **REDUNDANT HYBIC TEST & TEMPORARY SWAP**

  - PURPOSE OF THE TEST
    - Validate operability of HYBIC 1 and health of celestial sensors
    - Refine sun sensor bias offsets between HYBIC 2 and 1
    - Gather information in preparation for a permanent swap and calibration or further testing
  - RISK
    - Flight Controller Processor (FCP) swap if HYBIC 1 not operational
      - Contingency commands available to update new FCP
    - Possible loss of downlink if return to HYBIC 2 not successful
      - On-board fault response optimized to minimize this possibility
    - Total risk minimized by short HYBIC 1 observation period

Voyager 2 HYBIC Test
And Permanent Switch Plan

Voyager 2 HYBIC Test & Swap Plan

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November 2006

Version 10-15-2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 Telemetry Mods D/L from B133 DOY 306	3 Annual Full MRO D/L from B133 DOY 307	4 DOY 308
5 DOY 309	6 DOY 310	7 Uplink Window: B134 HYBIC-1 Test Sequence, MRO DOY 311	8 DOY 312	9 DOY 313	10 DOY 314	11 DOY 315
12 DOY 316	13 DOY 317	14 Uplink Window: B134A HYBIC-1 Test Sequence, MRO DOY 318	15 DOY 319	16 DOY 320	17 DOY 321	18 DOY 322
19 DOY 323	20 Begin B134A Execution DOY 324	21 X-Band High Power Gyros BC On PSU Instrum Off TCM Press Trans Off DOY 325	22 DOY 326	23 Thanksgiving DOY 327	24 Thanksgiving BLF Analysis DOY 328	25 DOY 329
26 DOY 330	27 DOY 331	28 See December Calendar For Last Week Of November DOY 332	29 DOY 333	30 DOY 334	DOY 335	

October 2006

S	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Voyager 2 HYBIC Test & Swap Plan

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Voyager

December 2006

Version 10-15-2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26 DOY 330 BLF Analysis >=========|	27 DOY 331 GO/NO GO For HYBIC-1 Test	28 DOY 332 Uplink Window: Enable Temporary Swap |========== (Without Enable-Flag Reset)	29 DOY 333	30 DOY 334 **HYBIC-1 Test** Swap To HYBIC-1 For 28 Minutes And Back To HYBIC-2	1 DOY 335 BLF Analysis |==========>	2 DOY 336
3 DOY 337 BLF Analysis >==========|	4 DOY 338	5 DOY 339 Uplink Window: Disable Sun Point & Earth Point, MRO, Gyros Off, XB Low Power, Poss Sun Sensor Bias Update |==========	6 DOY 340	7 DOY 341	8 DOY 342	9 DOY 343
10 DOY 344 >==========|	11 DOY 345	12 DOY 346	13 DOY 347	14 DOY 348 **Sun Point** If Not Disabled By Now	15 DOY 349	16 DOY 350
17 DOY 351	18 DOY 352	19 DOY 353	20 DOY 354	21 DOY 355	22 DOY 356	23 DOY 357
Christmas Eve 24 DOY 358	Christmas Day 25 DOY 359	26 DOY 360	27 DOY 361	28 DOY 362 **Earth Point** If Not Disabled By DOY 348, End B134A Execution	29 DOY 363	30 DOY 364
New Year's Eve 31 DOY 365		November 2006				

S	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Voyager 2 HYBIC Test & Swap Plan

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Voyager

January 2007

Version 10-15-2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 New Year's Day DOY 001	2 DOY 002	3 DOY 003	4 DOY 004	5 DOY 005	6 DOY 006
7 DOY 007	8 DOY 008	9 Uplink Window: B134B Permanent Swap Sequence (Worst Case CMDLOS Timeout Since 06-332) DOY 009	10 DOY 010	11 DOY 011	12 DOY 012	13 DOY 013
14 DOY 014	15 ML King Day DOY 015	16 DOY 016	17 DOY 017	18 Begin B134B Execution, X-Band High Power Gyros BC On DOY 018	19 DOY 019	20 BLF Analysis DOY 020
21 DOY 021	22 GO/NO GO For Permanent Swap to HYBIC-1 DOY 022	23 Uplink Window: Enable Permanent Swap (Without Enable-Flag Reset) DOY 023	24 DOY 024	25 **Permanent Swap To HYBIC-1** & .8⅓ASCAL DOY 025	26 DOY 026	27 BLF Analysis DOY 027
28 DOY 028	29 DOY 029	30 DOY 030	31 DOY 031			

See February Calendar For Last Week of January

December 2006

S	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Voyager 2 HYBIC Test & Swap Plan

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Voyager

February 2007

Version 10-15-2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2 Groundhog Day	3
Uplink Window: Disable Sun Point & Earth Point & Auto-Swap Back, MRO, Gyros Off, XB Low Power				DOY 032	DOY 033	DOY 034
4	5	6	7	8	9	10
DOY 035	DOY 036	DOY 037	DOY 038	**Sun Point** If Not Disabled By Now DOY 039	DOY 040	DOY 041
11	12 Lincoln's B-Day	13	14 Valentines Day	15	16	17
DOY 042	DOY 043	DOY 044	DOY 045	DOY 046	DOY 047	DOY 048
18	19 President's Day	20	21	22	23	24
DOY 049	DOY 050	DOY 051	DOY 052	**Earth Point & Auto-Swap Back** If Not Disabled By DOY 039, End B134B Execution DOY 053	DOY 054	DOY 055
25	26	27	28	1	2	3
Uplink Window: B135 13-Week Load Starting With HYBIC-Swap Cleanup, MRO DOY 056	DOY 057	DOY 058	DOY 059	Begin B135 Execution Cleanup: Enable BL Magrols, Undo TLM Mods, MRO, Gyros AC On DOY 060	DOY 061	DOY 062

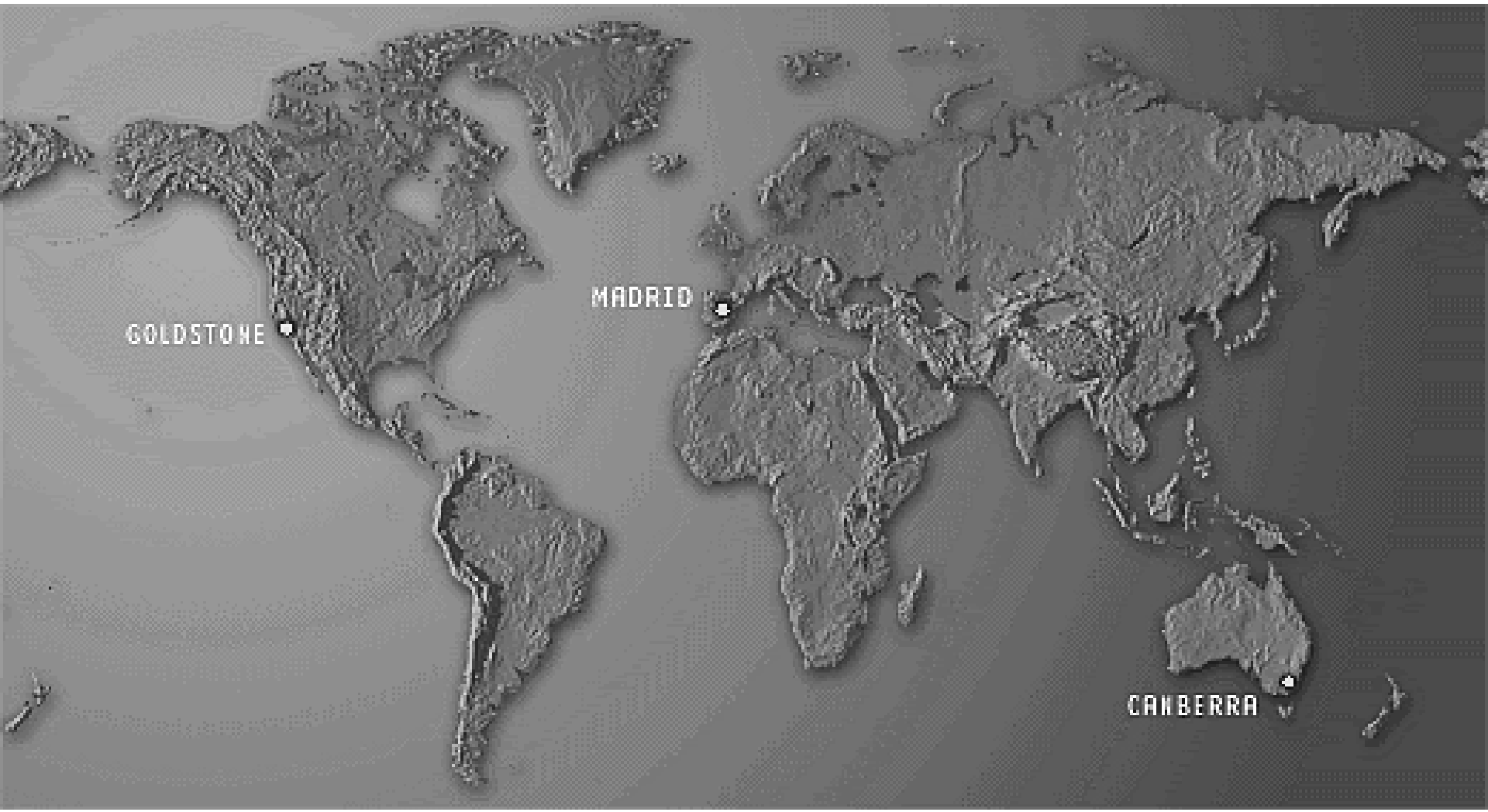
January 2007

S	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Upcoming Near-Term Baseline Events

07-066 X-Band High Power & Playback
07-067 Gyros BC On, CCS Timing Test
07-071 ASCAL
07-074 Magrol, Gyros Off
07-080 X-Band Low Power

2007 DSS-43 Downtime Extension Request for Grouting and Painting



By: Steven Chhan

DSS-43 Downtime Extended for 7 Days

Current Downtime for DSS-43

Start on Week 5 DOY 029 : 2100UTC

End on Week 6 DOY 041: 0000UTC

Request 7 days extension for DSS-43 (start earlier)

Start on Week 4 DOY 022 : 2100UTC

End on Week 6 DOY 041: 0000UTC

Request 7 days extension for DSS-43 (finish later)

Start on Week 5 DOY 029 : 2100UTC

End on Week 7 DOY 048: 0000UTC

DSS-43 Downtime Extended for 7 Days

Either start earlier or extend later?

Missions Effected if DSS-43 DT starts on Week 4

- Spitzer
- Mars Odyssey
- Mars Reconnaissance Orbiter
- New Horizons Jupiter Approach
- Voyager 2

Missions Effected if DT extended to end on Week 7

- Ulysses Nutation
- SOHO Keyhole
- Rosetta Mars Swing-by
- Spitzer
- Mars Odyssey and Mars Reconnaissance Orbiter
- New Horizons
- Voyager 2

DSS-43 Downtime Extended for 7 Days

Recommendation to start earlier, and use alternative resources

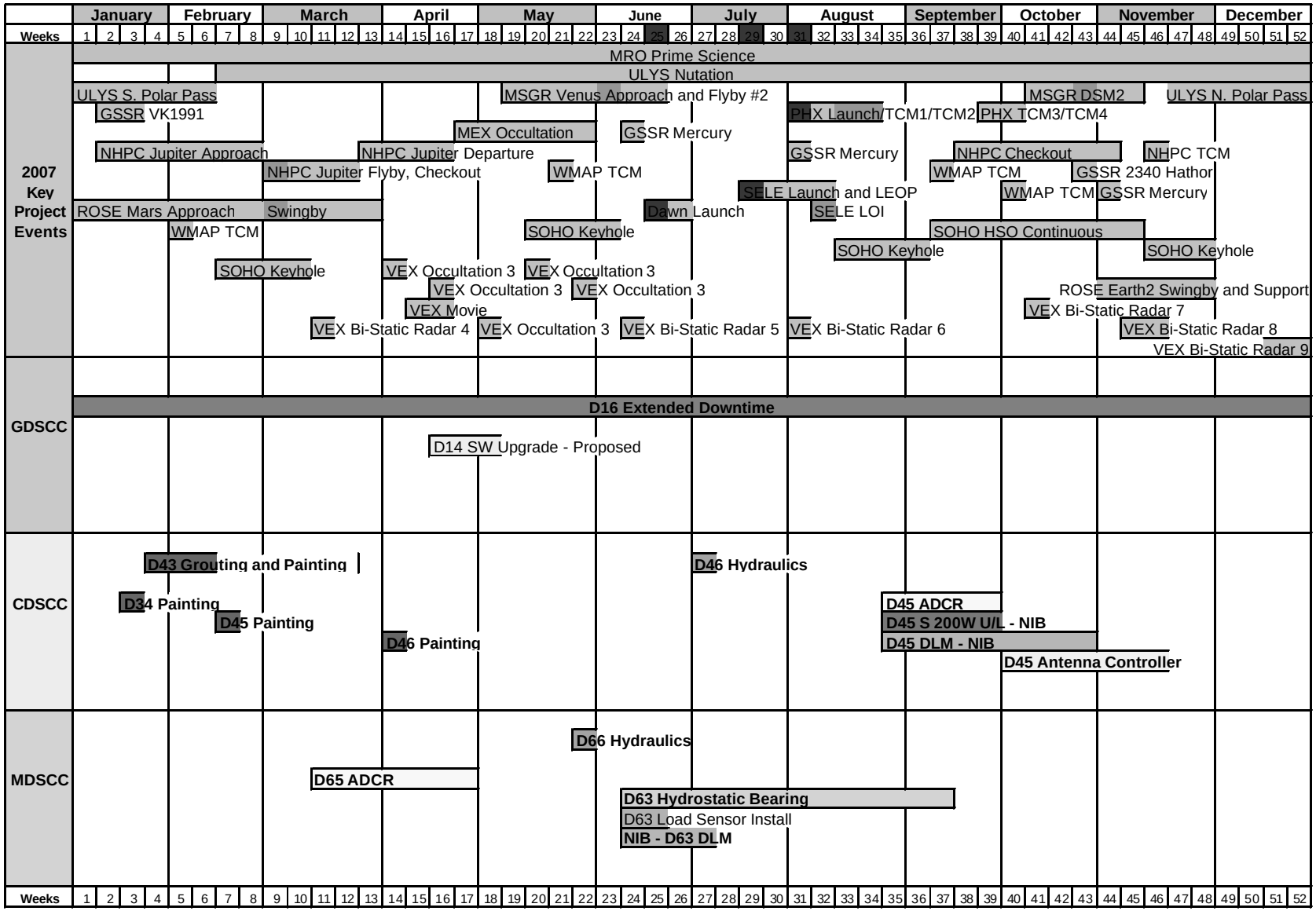
Less Major Events to content with if start on Week 4

- Spitzer alternative is DSS-63
- Mars Odyssey alternatives are HEF (DSS45, 55) and DSS-26
- Mars Reconnaissance Orbiter alternatives are HEF and DSS-26
- New Horizons Jupiter Approach alternatives are DSS-63 and DSS-14
- Voyager 2

More Major Events to content with if extend to beyond Week 6

- Ulysses Nutation requires southern hemisphere antenna starts on weeks 6 through weeks 21 (DSS43, DSS-34)
- SOHO Keyhole requires DSS-43
- Rosetta Mars Swing-by requires DSS-43

Antenna Downtime Status and Forecast 2007



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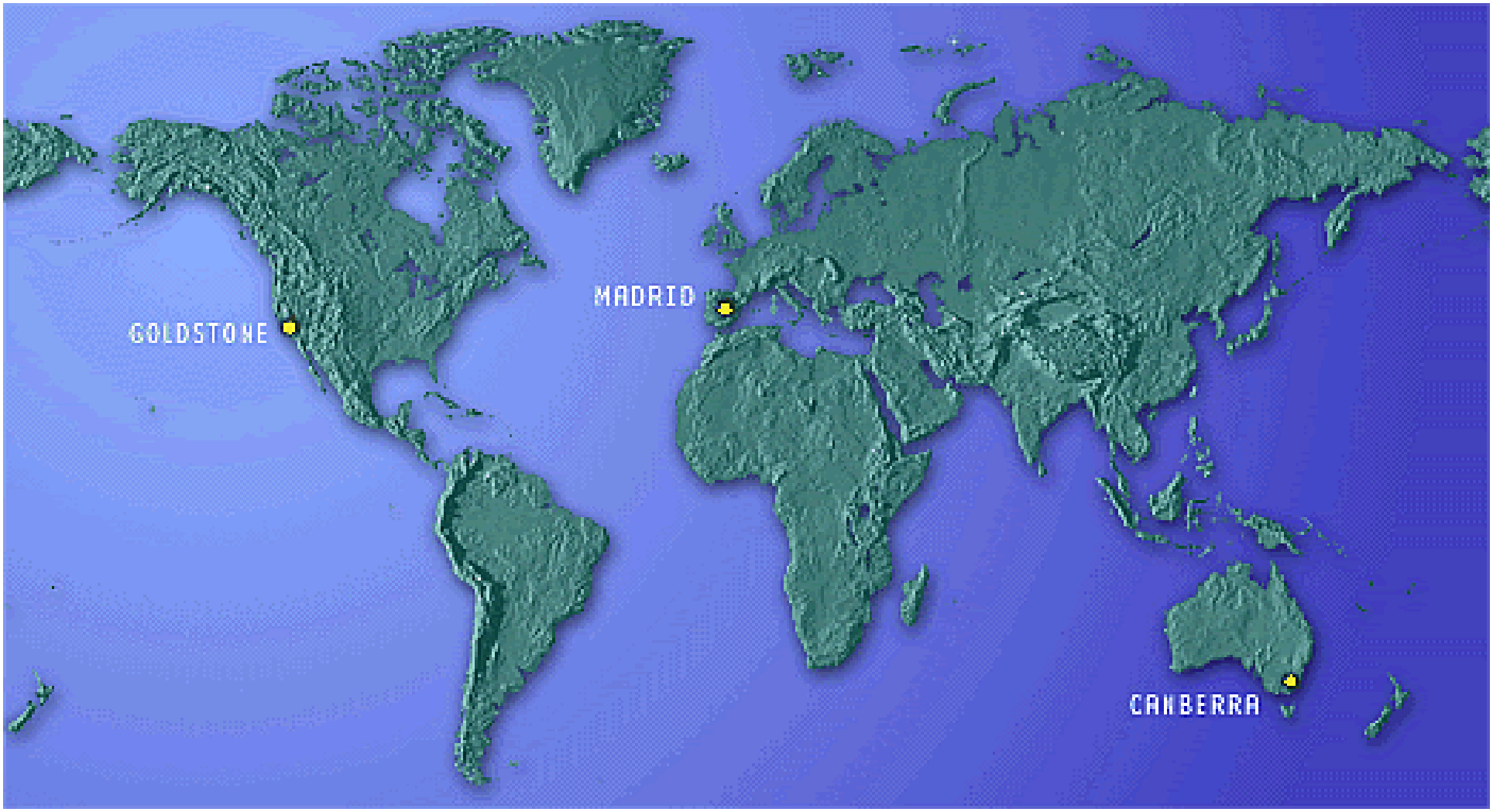
DSN Antenna Downtime Status and Forecast



http://rapweb.jpl.nasa.gov/planning

Antenna Downtime Status and Forecast

Changes to 2006 Downtime Schedule

- DSS-45 Downtime requested in week 50 has been scheduled for DOY 346 – 350 of 2007

Changes to 2007 Downtime Schedule

- DSS-43 Grouting and Painting task has requested an extension of an additional 7 days.
- DSS-65 ADCR task was reduced to 50 days and is now scheduled for DOY 057 – 108. NIB tasks for the 200W S-Band installation and DLM have been removed, an additional downtime later in 2007.
- DSS-65 200W S-Band installation and DLM tasks have been proposed to occur in Weeks 44 – 49 of 2007
- DSS-14 ACR Software Update task has been requested and the proposed dates are April 16 – May 6, 2007.
- DSS-46 Hydraulics task has been proposed to move to week 20 from weeks 27 and 28 and reduced from 9 to 5 days.
- DSS-63 Load Sensor install was added NIB to existing DSS-63 downtime beginning in June 2007.
- DSS-45 Antenna Controller Replacement has been proposed for week 40 – 45. This was moved from 2006 due to launch changes.
- LNA Status Preventative Maintenance periods have been requested in 2007.
- DLM tasks have been modified to extend NIB throughout the entire duration of existing downtimes.

Changes to 2008 Downtime Schedule

- DSS-34 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 208-278 (weeks 30 - 40) July 26 – October 04

Changes to 2009 Downtime Schedule

- DSS-24 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 192-262 (weeks 28 – 38) July 11 – September 19

Changes to 2010 Downtime Schedule

- DSS-54 Proposed Downtime for Ka-Band Phase 2 Implementation, 10 weeks DOY 235-270 (weeks 28 - 38) August 23 – September 27

All previous downtime proposals have been agreed to by all DSN Missions/Users through the INCF/RAR, JURAP or Mid-Range Scheduling Process

Antenna Downtime Status and Forecast

MAJOR DSN DOWNTIMES by DATE

Friday, November 17, 2006 4:17:52 PM

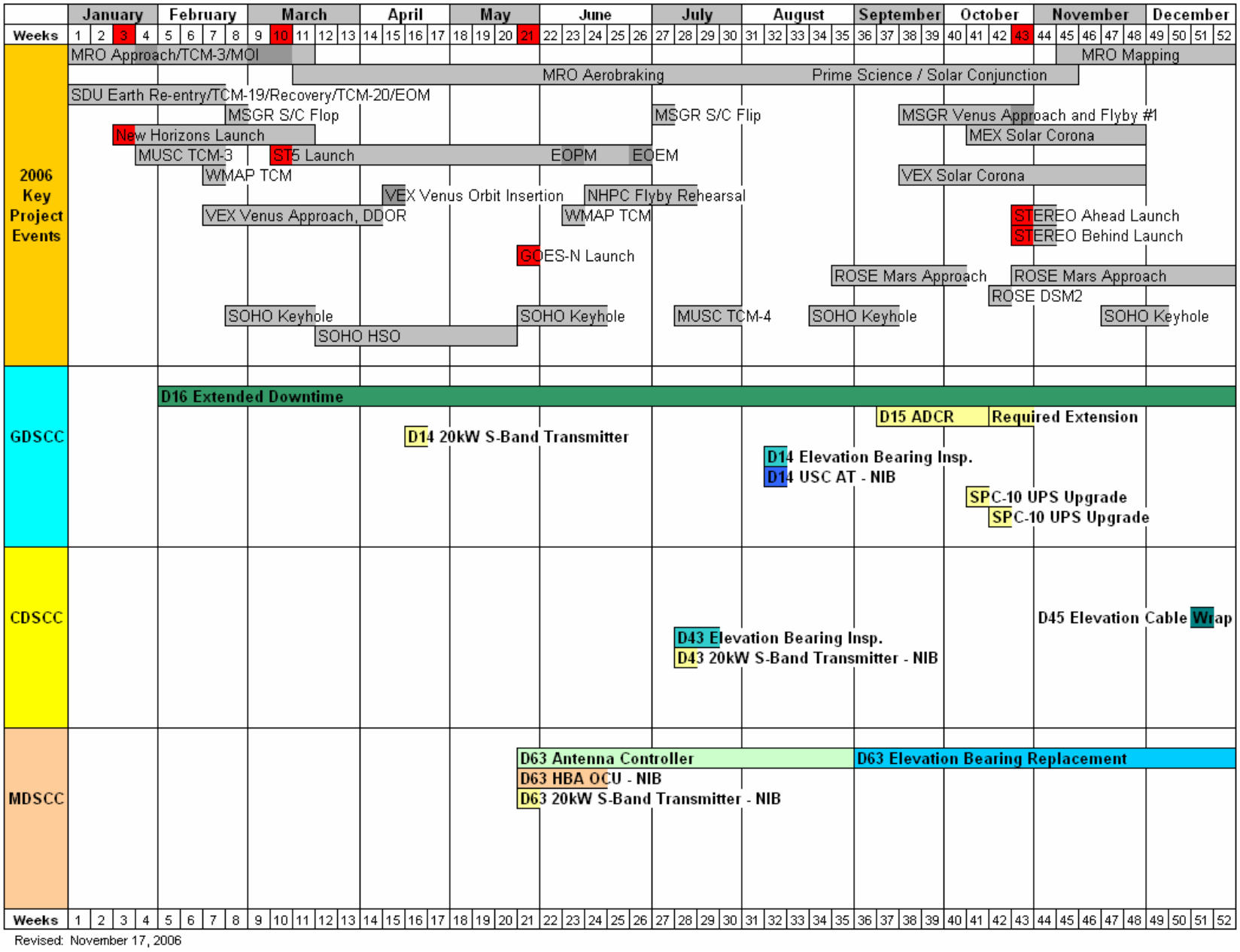
2006							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 16	Extended Downtime	01/30/2006 16:00	12/31/2009 23:59	1432	05 - 53	030	365
DSS 63	Elevation Bearing Replacement	10/02/2006 00:00	12/31/2006 23:59	91	40 - 52	275	365

2007							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 43	Regrout and Painting	01/29/2007 21:00	02/11/2007 23:59	13	05 - 06	029	041
DSS 65	Antenna Drive Cabinet Refurbishment	02/26/2007 00:00	04/16/2007 23:59	50	09 - 16	057	106
DSS 66	Hydraulics Task	05/28/2007 00:00	06/01/2007 23:59	5	22 - 22	148	152
DSS 63	Hydrostatic Bearing Replacement	06/12/2007 00:00	09/16/2007 23:59	97	24 - 37	163	259
DSS 63	Depot Level Maintenance - NIB	06/12/2007 00:00	09/16/2007 23:59	97	24 - 37	163	259
DSS 63	Load Sensors Install - NIB	06/12/2007 00:00	09/16/2007 23:59	97	24 - 37	163	259
DSS 46	Hydraulics Task	07/02/2007 00:00	07/10/2007 23:59	9	27 - 28	183	191
DSS 45	Antenna Drive Cabinet Refurbishment	08/27/2007 00:00	10/01/2007 23:59	36	35 - 40	239	274
DSS 45	S-Band 200W U/L Install - NIB	08/27/2007 00:00	10/01/2007 23:59	36	35 - 40	239	274

2008							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	X/X-Ka Band Install	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	AZ Track Refurbishment - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	AZ Data Gear Replacement - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	Q-Band Installation - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 54	Depot Level Maintenance - NIB	02/04/2008 00:00	05/11/2008 23:59	98	06 - 19	035	132
DSS 15	Life Extension	02/18/2008 00:00	05/11/2008 23:59	84	08 - 19	049	132
DSS 15	Depot Level Maintenance - NIB	02/18/2008 00:00	05/11/2008 23:59	84	08 - 19	049	132
DSS 43	Life Extension	09/29/2008 00:00	03/29/2009 23:59	182	40 - 13	273	088

2009							
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	Life Extension	03/30/2009 00:00	09/27/2009 23:59	182	14 - 39	089	270
DSS 14	Life Extension	09/28/2009 00:00	03/28/2010 23:59	182	40 - 12	271	087

Antenna Downtime Status and Forecast 2006



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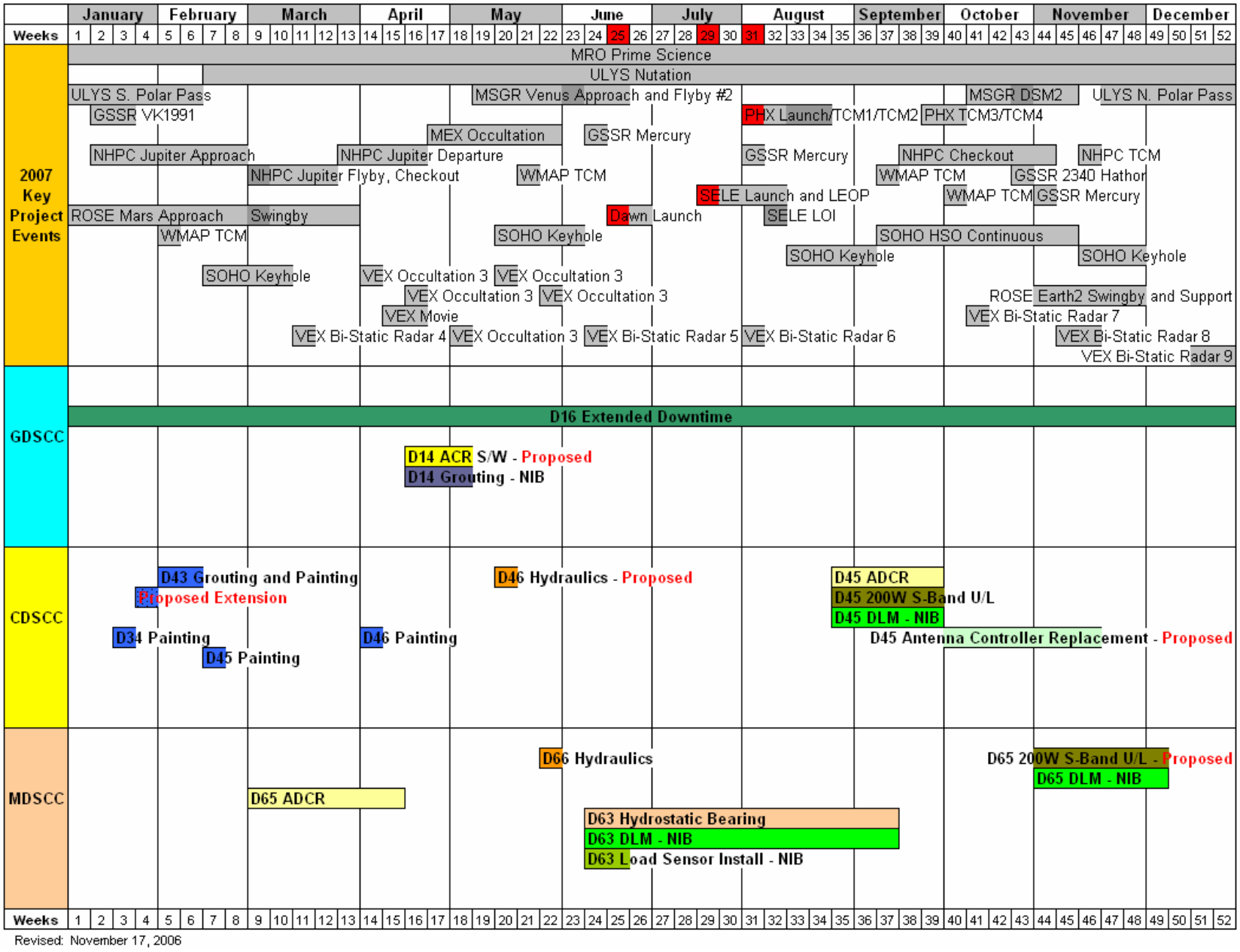
Antenna Downtime Status and Forecast 2007



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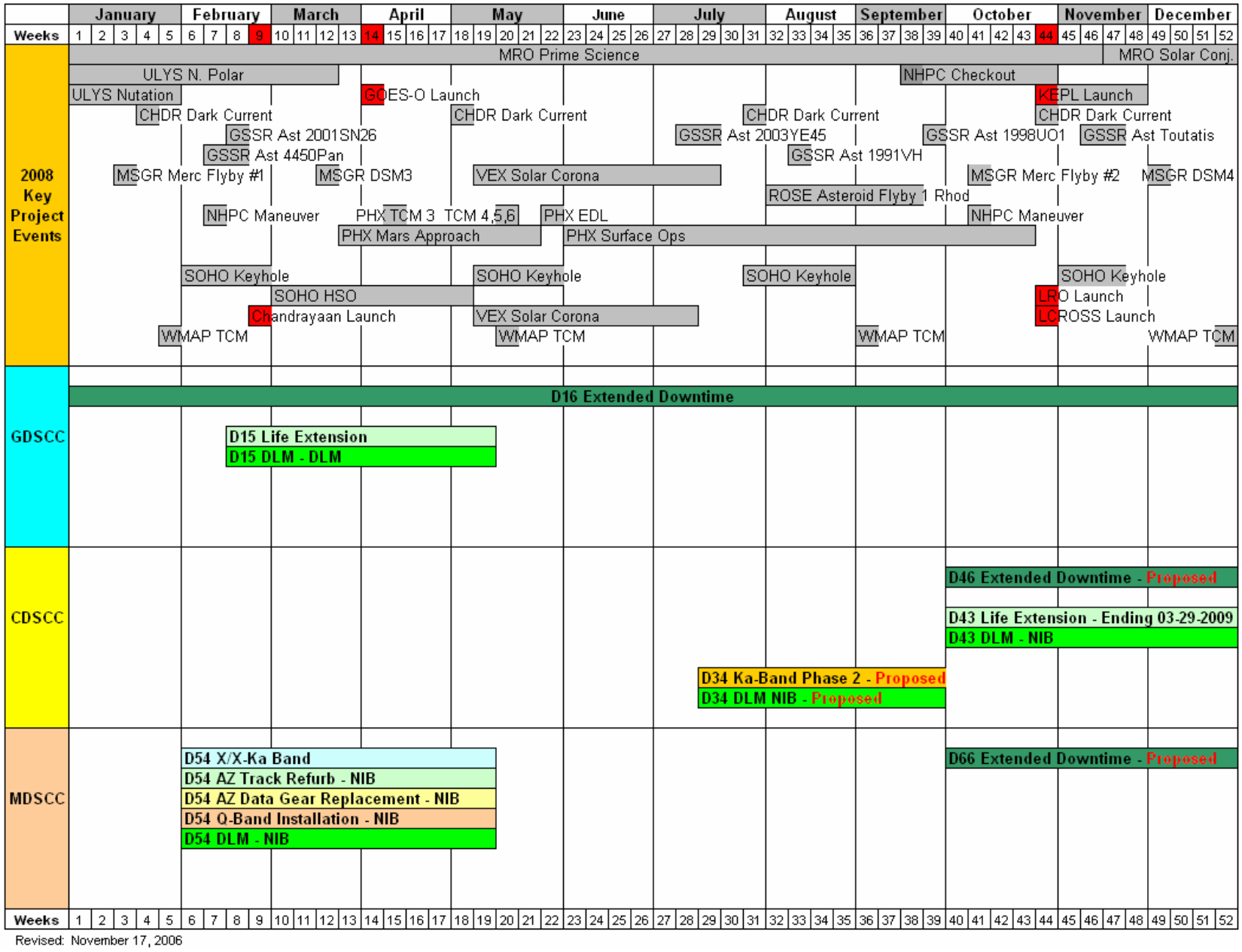
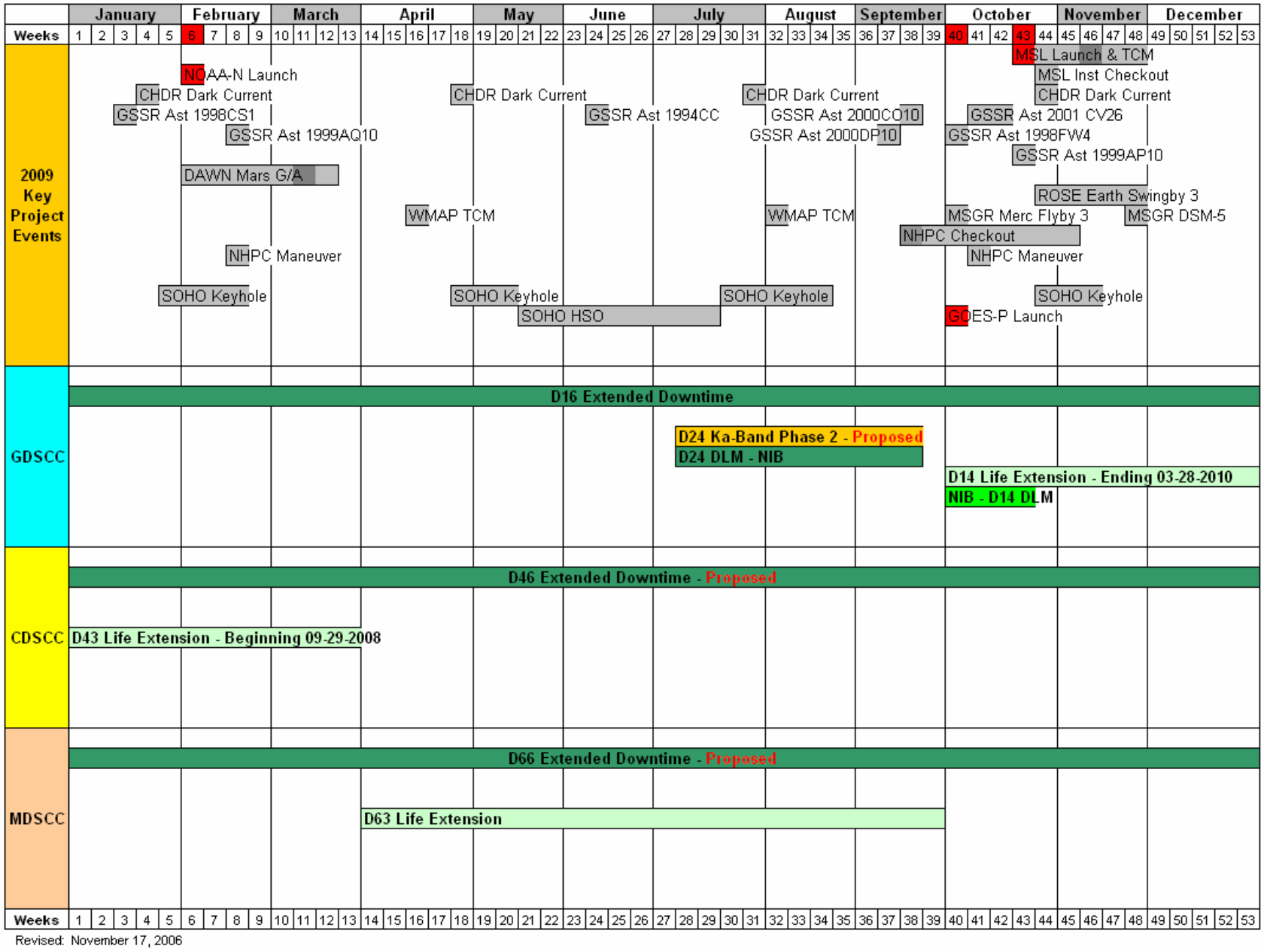
Antenna Downtime Status and Forecast 2008



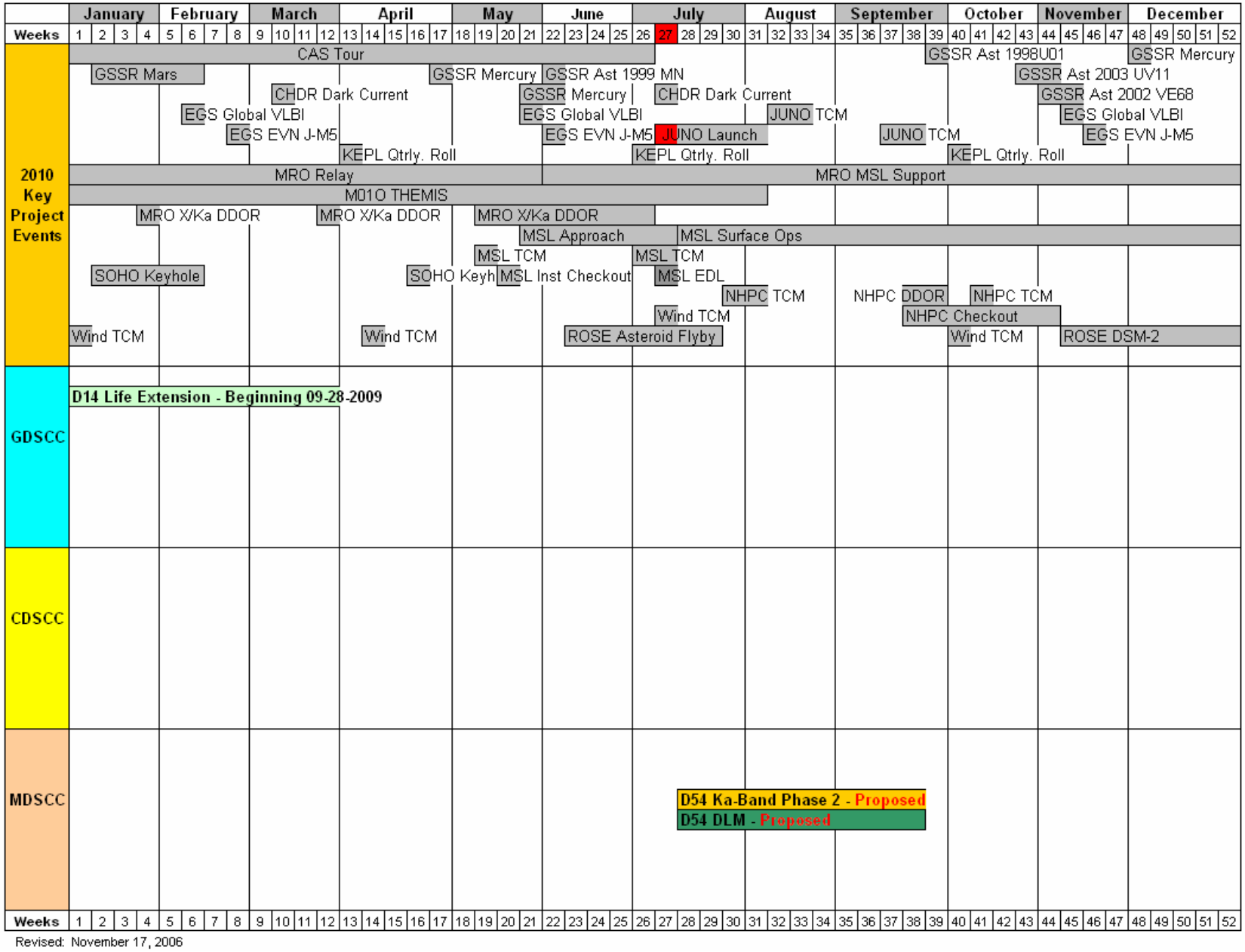
Revised: November 17, 2006

Antenna Downtime Status and Forecast 2009



Revised: November 17, 2006

Antenna Downtime Status and Forecast 2010



Revised: November 17, 2006

Antenna Downtime Status and Forecast

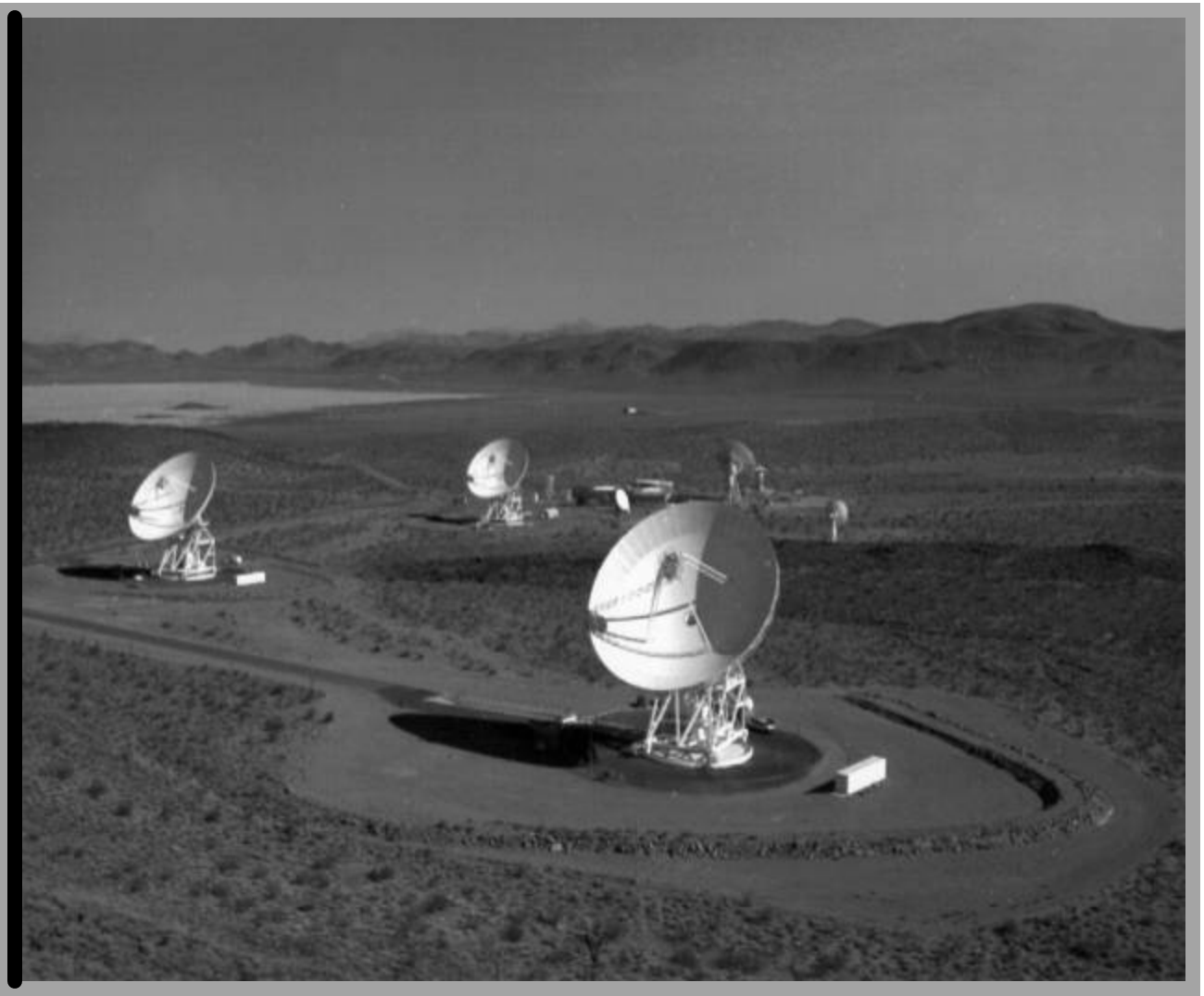
DSN Resource Implementation Planning Matrix by Subnet

Complex	Station	Subnet	S-Band Down	S-Band Up	X-Band Down	X-Band Up	Ka-Band Down	Ka-Band Up	NSP/ TT&C
10	DSS-16	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
40	DSS-46	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
60	DSS-66	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✔	✔	N/A	N/A	N/A	N/A	✔ ✔ ✔
10	DSS-24	34B1	✔	✔	✔	✔	N/A	N/A	✔
40	DSS-34	34B1	✔	✔	✔	✔	✔ ✔ ✔	N/A	✔
60	DSS-54	34B1	✔	✔	✔	✔	04/15/08	N/A	✔
10	DSS-25	34B2	N/A	N/A	✔	✔	✔	N/A	✔
10	DSS-26	34B2	N/A	N/A	✔	✔	✔	N/A	✔
60	DSS-55	34B2	N/A	N/A	✔	✔	✔ ✔ ✔	N/A	✔
10	DSS-15	34HEF	✔	N/A	✔	✔	N/A	N/A	✔
40	DSS-45	34HEF	✔	11/01/07	✔	✔	N/A	N/A	✔
60	DSS-65	34HEF	✔	11/01/07	✔	✔	N/A	N/A	✔
10	DSS-14	70M	✔	✔	✔	✔	N/A	N/A	✔
40	DSS-43	70M	✔	✔	✔	✔	N/A	N/A	✔
60	DSS-63	70M	✔	✔	✔	✔	N/A	N/A	✔

N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Changed As of: 10/18/06

✔ ✔ ✔ = Capability Recently Exists ✔ = Capability Exists

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



Resource Analysis Team

November 16, 2006

Daniel Garibek

MID-RANGE SCHEDULING STATUS

- **RESOURCE NEGOTIATION STATUS**
  - 2007 WEEKS 01 - 02 (THRU 01/14/2007) WERE RELEASED TO DSN SCHEDULING ON 11/14/2006.
  - 2007 WEEKS 07 - 08 (THRU 02/25/2007) ARE DUE TO BE RELEASED TO THE REMOTE USERS ON 11/27/2006.
  - 2007 WEEKS 03 - 04 (THRU 01/28/2007) HAVE REMAINING FACILITY AND EQUIPMENT CONFLICTS.

- The Mid-Range Scheduling process has negotiated schedules 5 weeks ahead of real-time. Currently, there are 5 weeks of conflict-free schedules. Conflict Resolution is required for the following four (4) weeks: 12/18/2006 through 01/14/2007.

ON-GOING SPECIAL STUDIES/ACTIVITIES

- Cassini Study - Completed
- Tracking and Data Relay Satellite System (TDRSS) – ongoing
- Ulysses Study – ongoing
- Downtime Planning - ongoing

SPECIAL STUDY SUMMARY:

Cassini Study **Completed: November 15, 2006**

Purpose

The purpose of this study was to determine the supportability during the 2-year planned extended mission from July 2008 through June 2010

Conclusion

There are long periods of good supportability and overall the DSN is forecast to be able to provide a daily 8-9 hour pass for Cassini, but the mission may have some difficulty scheduling that time during the periods of low supportability. See full report online.

http://rapweb.jpl.nasa.gov/studies.html

Resource Allocation Planning Service (RAPS)

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
DSN Antenna Calibration	DSN	--	--	--
DSS Maintenance	DSS	--	--	--
DSN ZDD Calibration	DSN	11/01/04	--	--
European and Global VLBI Systems	EGS	--	--	--
Ground Based Radio Astronomy	GBRA	--	--	--
Reference Frame Calibration (Cat M&E and Clock Sync)	DSN	--	--	--
Space Geodesy	SGP	--	--	--
Voyager 2	VGR2	08/20/77	10/15/89	12/31/10
Voyager 1	VGR1	09/05/77	12/31/80	12/31/10
Goldstone Solar System Radar	GSSR	04/01/85	--	--
Ulysses	ULYS	10/06/90	09/11/95	03/30/08
Geotail	GTL	07/24/92	07/24/95	10/01/08
Wind	WIND	11/01/94	11/01/97	10/01/11
SOHO	SOHO	12/02/95	05/02/98	10/01/11
Polar	POLR	02/22/96	08/23/97	03/31/07
Mars Global Surveyor	MGS	11/07/96	02/01/01	11/03/09
Advance Composition Explorer	ACE	08/25/97	02/01/01	10/01/13

Resource Allocation Planning Service (RAPS)

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Cassini	CAS	10/15/97	06/30/08	06/30/10
Chandra X-Ray Observatory	CHDR	07/23/99	07/24/09	07/24/14
Imager for Magnetopause-to-Aurora Global Exploration	IMAG	03/25/00	05/30/02	10/01/11
Cluster 2 - S/C #2 (Samba)	CLU2	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #3 (Rumba)	CLU3	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #1 (Salsa)	CLU1	08/09/00	02/15/03	12/31/09
Cluster 2 - S/C #4 (Tango)	CLU4	08/09/00	02/15/03	12/31/09
Mars Odyssey 2001	M01O	04/07/01	08/24/04	12/31/10
Wilkinson Microwave Anisotropy Probe	WMAP	06/30/01	10/01/03	09/30/10
Advanced Tracking and Observational Techniques (ATOT)	ATOT	02/01/02	12/31/08	- - -
International Gamma Ray Astrophysics Lab	INTG	10/17/02	12/18/04	12/16/10
Hayabusa (MUSES - C)	MUSC	05/09/03	06/10/07	- - -
Mars Express Orbiter	MEX	06/02/03	02/11/06	12/31/08
Spirit (Mars Exploration Rover - A)	MER2	06/10/03	04/06/04	09/30/08
Opportunity (Mars Exploration Rover - B)	MER1	07/07/03	04/27/04	09/30/08
Spitzer Space Telescope (SIRTF)	STF	08/25/03	05/31/09	05/31/14
Rosetta	ROSE	02/26/04	12/31/15	- - -

Resource Allocation Planning Service (RAPS)

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Messenger	MSGR	08/03/04	03/19/12	- - -
Mars Reconnaissance Orbiter	MRO	08/12/05	12/31/10	12/31/15
Venus Express	VEX	11/09/05	09/24/07	01/22/09
New Horizons	NHPC	01/19/05	04/17/16	TBD
Space Technology 5 - S/C #1	ST51	03/11/06	06/11/06	06/30/06
Space Technology 5 - S/C #2	ST52	03/11/06	06/11/06	06/30/06
Space Technology 5 - S/C #3	ST53	03/11/06	06/11/06	06/30/06
Stereo Ahead	STA	10/25/06	09/26/08	09/26/11
Stereo Behind	STB	10/25/06	09/26/08	09/26/11
Dawn	DAWN	06/20/07	07/04/15	TBD
Phoenix	PHX	08/03/07	10/26/08	TBD
Lunar Reconnaissance Orbiter	LRO	10/31/08	09/31/10	TBD
Lunar Crater Observation and Sensing Satellite	?	10/31/08	01/31/09	TBD
Kepler	KEPL	11/01/08	12/01/12	- - -
Mars Science Laboratory 2009	MSL	10/25/09	03/04/12	TBD

Resource Allocation Planning Service (RAPS)

– Advanced / Planning Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
SELENE	SELE	02/01/07	02/21/07	TBD
Chandrayaan – 1	?	03/01/08	03/01/10	TBD
Juno	JUNO	07/08/10	09/18/16	TBD
Space Interferometry Mission	SIM	10/01/14	04/01/19	04/01/24
Mars Scout 2011	M11L	01/31/12	09/10/14	TBD
James Webb Space Telescope	JWST	08/01/11	07/31/16	TBD
Mars Orbiter 2013	M13O	11/28/13	08/21/16	TBD